

PERTUSSIS

Pertussis (whooping cough) is a highly contagious disease of the respiratory tract caused by the bacterium *Bordetella pertussis*. The disease can progress to severe paroxysms of cough, often with a characteristic inspiratory whoop. Pertussis is primarily a very contagious childhood disease that can be particularly severe in infants less than one year of age. Transmission occurs by direct contact with aerosol droplets from the respiratory tract of infected persons. Immunization beginning at two months of age is recommended.

Laboratory Criteria for Confirmation:

?? Isolation of *Bordetella pertussis* from clinical specimen, **OR**

?? Positive polymerase chain reaction (PCR) for *B. pertussis*.

Case Classification

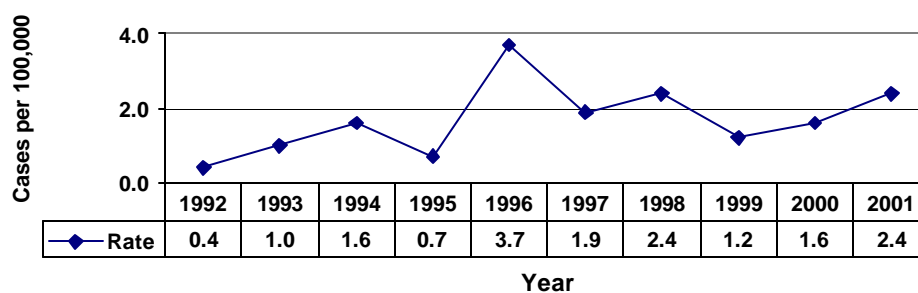
Confirmed: A case that is laboratory confirmed or one that meets the clinical case definition and is either laboratory confirmed or epidemiologically linked to a laboratory-confirmed case.

Probable: A case that meets the clinical case definition, is not laboratory confirmed, and is not epidemiologically linked to a laboratory-confirmed case.

Comment

The clinical case definition is appropriate for endemic or sporadic cases. In outbreak settings, a case may be defined as a cough illness lasting ≥ 2 weeks. Because some studies have documented that direct fluorescent antibody testing of naso-pharyngeal secretions has low sensitivity and variable specificity, it should not be relied on as a criterion for laboratory confirmation. Serologic testing for pertussis is available in some areas but is not standardized and, therefore, should not be relied on as a criterion for laboratory confirmation for national reporting purposes. Both probable and confirmed cases should be reported to the National Notifiable Disease Surveillance System.

**Pertussis Incidence
Kentucky, 1992-2001**

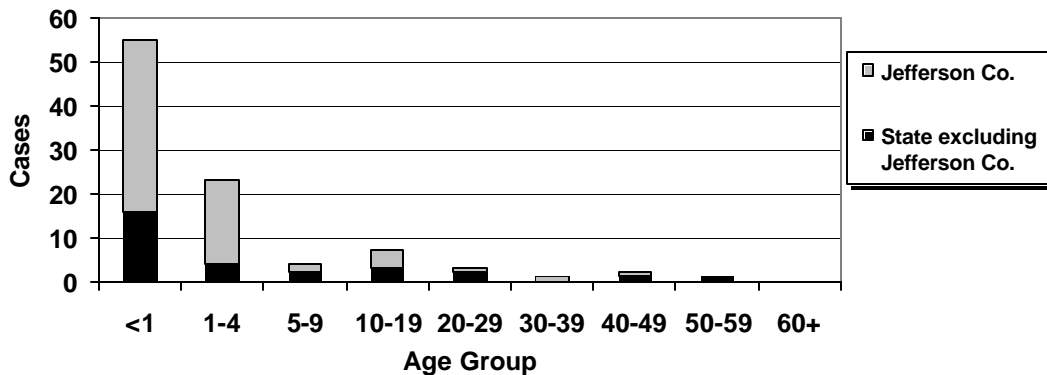


Epidemiology

Kentucky 2001	Rate per 100,000	U.S. Rate (2000) per 100,000
Cases 96	2.4	2.88

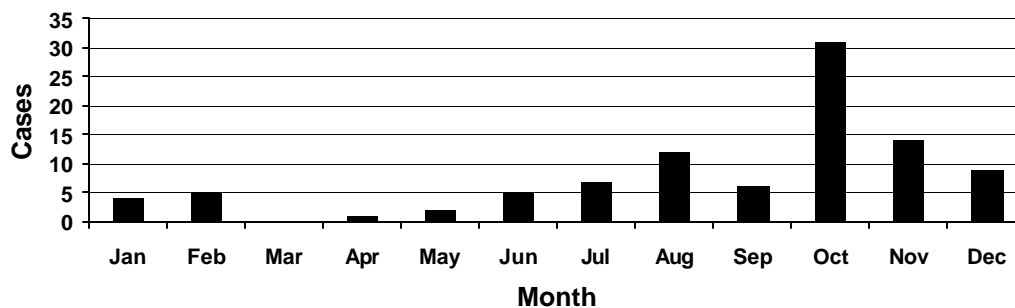
Cases by Gender	Rate per 100,000	Cases by Race	Rate per 100,000
Female 60	2.9	African/Am. 26	8.8
Male 36	1.8	White 66	1.8
		Other 1	0.9
		Unknown 3	

Pertussis, Cases by Age Group Kentucky 2001

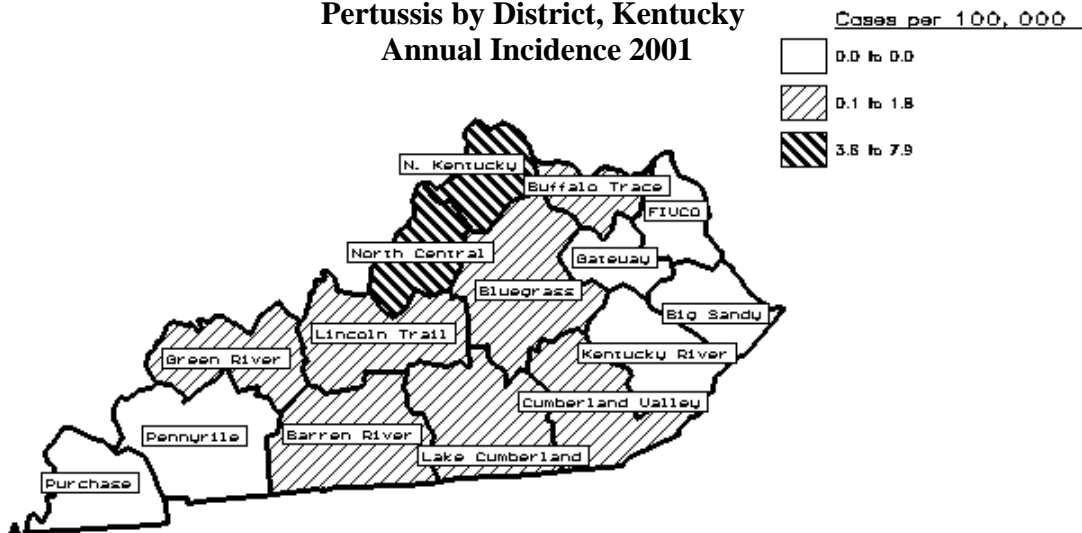


This chart shows actual case numbers in each age group. Children in the less than one year of age group experienced the highest rate both statewide, 36.6 cases per 100,000, and in Jefferson County, 414 cases per 100,000, followed by the 1-4 year age group. Seventy percent (70%) of the cases reported occurred in Jefferson County for a county rate of 9.6 per 100,000.

Pertussis, Reported Cases by Month of Onset Kentucky, 2001



Pertussis by District, Kentucky Annual Incidence 2001



Districts Reporting Cases Rate per 100,000

2001 Cases Rate

Green River District	2	1.0
Barren River District	4	1.6
Lincoln Trail District	1	0.4
North Central District	69	7.9
Northern Kentucky District	14	3.6
Buffalo Trace District	1	1.8
Cumberland Valley	1	0.4
Lake Cumberland District	1	0.5
Bluegrass District	3	0.4

The North Central District reported the highest rate of 7.9 cases per 100,000, followed by the Northern Kentucky District with 3.6 cases per 100,000.